REMARKS

Claims 1-12 are pending in this application, of which claims 1, 2 and 4-9 have been rejected and objection has been made to claims 3 and 10-12. Acknowledgement is made with appreciation of the indication of allowable subject matter in claims 3 and 10-12.

Upon entry of the following amendments, claims 3 and 10 will be rewritten in independent form by incorporating the subject matter of their respective base claims therein. This places claims 3 and 10 in allowable independent form without narrowing the original scope of these claims. Claims 4-6 have been amended to establish dependency to claim 3. Additionally, claim 1 has been amended to further emphasize the features of the present invention. The amendments to claim 1 are fully supported by the original specification and claims. No new matter has been added. As such, claims 1-12 remain active in this application. The Examiner is respectfully requested to reconsider and withdraw the outstanding objection(s) and rejection(s) in view of the amendments and remarks contained herein.

OBJECTION

An objection was made to claims 3 and 10-12 as dependent upon a rejected base claims. Accordingly, claims 3 and 10 have been rewritten in independent form as suggested by the Examiner. Therefore, Applicants respectfully request withdrawal of the outstanding objection. In addition, claims 4-6 have been amended to depend from new, independent claim 3. As such, Applicants respectfully submit that claims 3-12 are in condition for immediate allowance.

REJECTIONS UNDER 35 U.S.C. §§ 102 and 103

Claims 1, 4, 6, 8, and 9 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Saneyoshi (U.S. Patent No. 5,410,346). Claims 2 and 7 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Saneyoshi in view of Yasui (U.S. Patent No. 6,091,833). Claim 5 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Saneyoshi in view of Yasui and further in view of Stam (U.S. Patent No. 6,587,573). Applicants respectfully traverse and request reconsideration.

Applicants respectfully submit that these rejections have been overcome by the following amendments. By this paper, claims 3 and 10 have been rewritten in independent form, and claims 4-9, as amended, depend from independent claim 3. Therefore, Applicants respectfully submit that the rejections to claims 4-9 are now moot. Additionally, Applicants respectfully submit that claims 3-12 are in condition for allowance.

With regard to the rejection of claims 1 and 2. As amended, claim 1 is directed a vehicle front-view monitoring system for taking fail-safe measures to prevent at least one of a vehicle control and a warning control from executing on the basis of the vehicle front-view monitoring system and from malfunctioning due to a lowering of monitoring accuracy (see Applicants' specification on page 4, line 28 to page 5, line 7).

According to Applicants, Saneyoshi discloses, to those of ordinary skill in the art, a system for monitoring conditions outside a vehicle that warn a driver when it recognizes an obstacle. However, Applicants believe that Saneyoshi does not teach or suggest taking fail-safe measures to prevent at least one of a vehicle control and a warning control from executing on the basis of the vehicle front-view monitoring system and from malfunctioning due to a lowering of monitoring accuracy.

Furthermore, Applicants submit that Saneyoshi fails to teach or suggest a means for making a determination of failure based on luminance data as required in the present invention. According to Applicants, Saneyoshi only discloses a calculating method for the brightness data. (see col. 9, lines 53 to 63 of Saneyoshi). As such, Applicants respectfully submit that the present invention is not anticipated because Saneyoshi fails to inherently or explicitly disclose the features highlighted in amended claim 1.

Applicants further submit that Yasui fails to remedy the deficiencies of Saneyoshi with respect to claim 1(or with respect to claim 2 that depends from claim 1). Therefore, Applicants respectfully submit that the present invention as set forth in claims 1 and 2 is not made obvious by Saneyoshi singly, or in any combination with Yasui. Moreover, it is respectfully submitted that there is nothing in the cited documents that would have motivated those of ordinary skill in the art to have combined the teachings of the cited art in any way that would render these claims obvious, and the Office Action fails to explain any reason, suggestion or motivation whereby one skilled in the art would have been led to modify the Saneyoshi system with the Yasui system. Therefore, no prima facie obviousness is established.

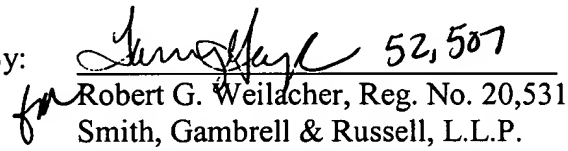
Thus, for the foregoing reasons, Applicants respectfully urge that the asserted rejections over Saneyoshi alone, and the alleged combination of Saneyoshi and Yasui are overcome. Withdrawal of the rejections under both 35 U.S.C. § 102 and 35 U.S.C. § 103 is respectfully requested.

CONCLUSION

Applicants respectfully submit that this Amendment and the above remarks obviate the outstanding rejection(s) and objection(s) in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited. If any fees under 35 C. F. R. § 1.16 or 1.17 are due in connection with this filing, please charge the Fees to Deposit Account No. 02-4300, Order No. 032405W084.

Respectfully submitted,

SMITH, GAMBRELL & RUSSELL, LLP

By:  52,507
for Robert G. Weilacher, Reg. No. 20,531

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Dated: October 26, 2004

Listing of Claims

1. (Currently Amended) A vehicle front-view monitoring system for taking fail-safe measures preventing at least one of a vehicle control and a warning control executing on the basis of the vehicle front-view monitoring system from malfunctioning due to lowering a monitoring accuracy, the system comprising:

a camera device for taking an image of a view in front;

a calculator for calculating luminance data on the image; and

a determination section for determining whether there is a fail occurring on the monitoring system based on the luminance data, the fail-safe measures being taken if the fail is occurring.

2. (Original) The vehicle front-view monitoring system according to claim 1, wherein the luminance data indicate luminance-distribution characteristic values indicating a horizontal luminance-distribution on the image.

3. (Currently Amended) ~~The vehicle front-view monitoring system according to claim 2,~~ A vehicle front-view monitoring system for taking fail-safe measures comprising:

a camera device for taking an image of a view in front;

a calculator for calculating luminance data on the image; and

a determination section for determining whether there is a fail occurring on the monitoring system based on the luminance data, the fail-safe measures being taken if the fail is occurring,

wherein the luminance data indicate luminance-distribution characteristic values indicating a horizontal luminance-distribution on the image, and

wherein the determination section determines the fail based on a parameter obtained by the calculator and normalizes the luminance-distribution characteristic values by a shutter speed for the camera device.

4. (Currently Amended) The vehicle front-view monitoring system according to ~~claim 2~~ claim 3, wherein the luminance-distribution characteristic values include the maximum value of addition of luminance on the image.

5. (Currently Amended) The vehicle front-view monitoring system according to ~~claim 2~~ claim 3, wherein the luminance-distribution characteristic value include a luminance-addition variance on the image.

6. (Currently Amended) The vehicle front-view monitoring system according to ~~claim 1~~ claim 3, wherein the luminance data include the number of data related to luminance edges in a predetermined monitoring area on the image.

7. (Original) The vehicle front-view monitoring system according to claim 6, wherein the number of data is the number of luminance edges.

8. (Original) The vehicle front-view monitoring system according to claim 6, wherein the number of data is the number of distance data obtain by a pair of cameras of the camera device.

9. (Original) The vehicle front-view monitoring system according to claim 6, wherein the monitoring area is set on the upper section of the image where a vehicle running ahead is displayed.

10. (Currently Amended) ~~The vehicle front-view monitoring system according to claim 1~~ A vehicle front-view monitoring system for taking fail-safe measures comprising:

a camera device for taking an image of a view in front;

a calculator for calculating luminance data on the image; and

a determination section for determining whether there is a fail occurring on the monitoring system based on the luminance data, the fail-safe measures being taken if the fail is occurring,

wherein the calculator calculates a luminance center as the luminance data, the luminance center corresponding to a horizontal position on the image at which luminance are

converged, and the determination section determines the fail by evaluating the horizontal luminance distribution on the image based on the luminance center.

11. (Original) The vehicle front-view monitoring system according to claim 10, wherein the calculator calculates luminance moment indicating the horizontal luminance distribution based on the luminance center and the determination section determines the fail based on the luminance moment.

12. (Original) The vehicle front-view monitoring system according to claim 3, wherein the calculator further calculates the number of data as another parameter related to luminance edges in a predetermined monitoring area on the image, the determination section determining the fail based on the parameters.